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NOTICE OF ALLOWANCE AND FEE(S) DUE

7590 06/08/2009

Horst Kasper 13 Forest Drive Warren, NJ 07059 EXAMINER

KOHARSKI, CHRISTOPHER

ART LINIT PAPER NUMBER

ART UNIT

DATE MAILED: 06/08/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,581	07/22/2003	Holger Soring	SOR 205	7516

TITLE OF INVENTION: ULTRASONIC WOUND TREATMENT APPARATUS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(8) DUE	DATE DUE
nonprovisional	YES	\$755	\$300	\$0	\$1055	09/08/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

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If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

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III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

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Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

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appropriate. All further indicated unless corrects maintenance fee notifica	correspondence includir ed below or directed oth tions.	ng the Patent, advance of nerwise in Block 1, by (orders and notification of (a) specifying a new corre	maintenance fees w spondence address;	ill be and/or	mailed to the current (b) indicating a sepa	correspondence address as rate "FEE ADDRESS" for
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Horst Kasper 13 Forest Drive Warren, NJ 0702	7590 06/08 59	V2009	I he Sta add trar	ereby certify that thi	e Feet	of Mailing or Transa s) Transmittal is being ficient postage for firs ISSUE FEE address I) 273-2885, on the da	nission deposited with the United class mail in an envelope above, or being facsimile tte indicated below.
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			_				(Signature)
							(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR	t	ATTO	RNEY DOCKET NO.	CONFIRMATION NO.
10/624,581 TITLE OF INVENTION	07/22/2003 E: ULTRASONIC WOU!	ND TREATMENT APPA	Holger Soring ARATUS			SOR 205	7516
APPLN, TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE	FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$755	\$300	\$0		\$1055	09/08/2009
EXAM	IINER	ART UNIT	CLASS-SUBCLASS	1			
KOHARSKI, C	HRISTOPHER	3763	604-022000				
"Fee Address" ind PTO/SB/47; Rev 03-0 Number is required. 3. ASSIGNEE NAME A	ondence address (or Cha 3/122) attached. ication (or "Fee Address 12 or more recent) attach ND RESIDENCE DATZ less an assignee is ident h in 37 CFR 3.II. Comp	inge of Correspondence Indication form and Use of a Customer A TO BE PRINTED ON	2. For printing on the j (1) the names of up to or agents OR, alternati (2) the name of a sing registered attorney or 2 registered patent att listed, no name will be the patent at the second of the patent of the	o 3 registered patent wely, le firm (having as a agent) and the name orneys or agents. If r printed. pe)	membes of u	er a 2p to p to e is 3	ocument has been filed for
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10/624,581	07/22/2003	Holger Soring	SOR 205	7516	
75	590 06/08/2009		EXAMINER		
Horst Kasper			KOHARSKI, CHRISTOPHER		
13 Forest Drive			ART UNIT	PAPER NUMBER	
Warren, NJ 07059			3763		
		DATE MAILED: 06/08/2009			

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 507 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 507 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Application No. Applicant(s) 10/624 581 SORING ET AL. Notice of Allowability Examiner Art Unit CHRISTOPHER D. KOHARSKI 3763 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. This communication is responsive to 5/18/2009. The allowed claim(s) is/are 2-17, 27-31 and 33-34. 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) \square All b) ☐ Some* c) ☐ None of the: 1. T Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). * Certified copies not received: _____. Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. Attachment(s) 1. Notice of References Cited (PTO-892) 5. Notice of Informal Patent Application 2. Notice of Draftperson's Patent Drawing Review (PTO-948) Interview Summary (PTO-413), Paper No./Mail Date 3. Information Disclosure Statements (PTO/SB/08), 7. X Examiner's Amendment/Comment Paper No./Mail Date 4. T Examiner's Comment Regarding Requirement for Deposit 8. X Examiner's Statement of Reasons for Allowance of Biological Material Other . /Christopher D Koharski/

Examiner, Art Unit 3763

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DETAILED ACTION

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Horst Kasper on 05/22/2009.

BEGINNING OF AMENDMENTS

IN THE SPECIFICATION

Please amend the specification as follows:

CROSS REFERENCE TO RELATED APPLICATIONS

The present application includes the subject matter and claims the priority of provisional Patent Application Serial No. 60/397,735 filed on July 22, 2002 and entitled "Medical Treatment Apparatus".

FIELD OF THE APPLICATION

The invention relates generally to fume suction devices used in conjunction with sonotrodes.

Preferably apparatus Many apparatuses are is employed which uses the advantages of ultrasound technology, for example the piezoceramic principle or the magneto-strictive principle, in connection with the employment of such apparatus, for example for cutting and for treatment of wounds. Here preferably the piezoceramic

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principle is employed since this piezo ceramic principle generates much less heat as compared with the magnetostrictive principle.

DESCRIPTION OF RELATED ART

Bad smelling and damaging fume gases can be generated in connection with the use of such apparatus, which fume gases can interfere with the sight of the operator and can lead to an endangerment of the health by the release of damaging aerosols, toxic gases and human viruses.

Fume suction devices are installed in most operating theaters. wherein the fume suction devices suck out the field of operation in the large area through a central ventilation device. Such fume sucking off devices did not preve itself such that today are not as useful today, so predominantly small apparatuses operated by an assistant are is employed, which small apparatus is operated by an assistant. Here the a so-called suction funnel is held by hand in the neighborhood of the operating tool, such that vapors and fume gases generated during the thermal tissue coagulation and during electro-surgical cutting can be sucked off immediately at the field of generation. In addition the aerosols released during the bactericidal treatment of wounds are sucked off with the aid of such apparatus.

It is a disadvantage of this method that the suck-off sucking apparatus has to be held by an auxiliary person, wherein the auxiliary person then is not available for other activities.

SUMMARY OF INVENTION

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It is an object of the invention to generate a medical treatment apparatus in particular for the treatment of wounds, which medical treatment apparatus does not exhibit the above described disadvantage, however can be employed with the same effectiveness.

This object is accomplished by sliding an adaptation sleeve over the sonotrode of the medical treatment apparatus and by attaching the adaptation sleeve at the hand piece, wherein the adaptation sleeve is furnished with a connector for receiving a suction hose.

Particular embodiments of the apparatus can be taken from the sub claims.

The feed region of the <u>a</u> sonotrode is covered with a sleeve screwed on the front region of the hand piece in a usual ultrasound apparatus, in particular for the bactericidal treatment or for the debridement of wounds. This sleeve can of course also be plugged or can be connected by way of a clamping cone or by a bayonet catch. After removal of the sleeve then the adapter part is set onto the hand piece and screwed on with a thread.

This adapter part is furnished with a receiver part for a suction hose, wherein the suction hose in turn is connected with a separating and depositing device. A further hose leads from this separating and depositing device to the suction device. The apparatus "Atmo-Safe™" produced and distributed by the company Atmos has proven to be a particular effectively working suction apparatus. The field filter installed in this apparatus is tuned to such a fine degree that the smallest components up to the size of viruses can be filtered out.

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BREIF DESCRIPTION OF THE DRAWINGS

The treatment apparatus according to the present invention is now to be illustrated by way of an embodiment shown in the drawings.

There is shown in:

Figure 1 a side elevation view of a usual hand piece with an inserted sonotrode;

Figure 2 the hand piece with a screwed off sleeve;

Figure 3 a separate arrangement of hand piece and adaptation part;

Figure 4 a side elevation view of a hand piece with a screwed on adaptation device:

Figure 5 a complete set up of a suctioning device.

DETAILED DESCRIPTION OF EMBODIMENTS OF THE INVENTION

The medical treatment apparatus the as illustrated in figure 1 comprises a hand piece (1) with a connector (5) for the connection line to the storage container for flushing liquid such as rock salt solution and others and also medical healing agents such as heparin, antibiotics and the like, wherein the flushing liquid and the medical healing agents are then fed to the tip of the sonotrode through the flushing line (6) and the valve (7) and through a channel within the sonotrode (3) equipped with an ultrasound vibration generator operating from a frequency region of from 5 kHz to 60kHz and perferably from 15kHz to 30kHz. The ultrasound energy is fed to the hand piece through the electro-connection (4) in a conventional way.

The hand piece is further equipped with a sonotrode receiver, wherein a sonotrode (3) is exchangeably screwed into the sonotrode receiver. The attachment

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region of the sonotrode is covered with a sleeve (2), wherein the sleeve can be removed with an attachment thread. Preferably, the sleeve (2) with its attachment thread is screwed into the <u>inner cylindrical</u> thread (8) of the hand piece (1). The adapter part can be attached to the hand piece (1) by way of the attachment thread (9) after the screwing off and the removal of the sleeve (2).

This adapter part comprises a connection bush (9), wherein with the connection bush (9) transitioning into the adaptation sleeve (10). The receiver part (12) with the hose connection (13) is disposed at this adaptation sleeve (10) and the suction tube (11) is attached at the oppositely disposed end.

The <u>suction</u> hose (14) is inserted into the hose connection (13), wherein <u>with</u> the hose (14) then ends <u>ending</u> in the separator (15). This separator (15) filters the large aerosol components out in a first step. This can be liquids or also solid components. Such separator (15) is primarily employed to care for the main filter disposed in the suction apparatus (A). The separator (15) can here be a conventional water trap or a HEPA-filter. Such a suction apparatus (A) is for example offered and distributed by the company Atmos under the Trademark AtmoSafe™.

The suction tube (11) attached at the adaptation sleeve (10) can be produced out of a transparent plastic in order to improve the view ability for the medical doctor onto the treatment field. The separator (15) is connected to the suction apparatus (A) through the connection tube (16) and through the connector (17).

APPENDIX

List of references numerals:

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A suction apparatus:	
1 hand piece	
2 sleeve	
3 sonotrode	
4 electro-connection	
5 connection for flushing liquid	
6 flushing line	
7 valve	
8 thread	
9 connection bush	
10 adaptation sleeve	
11 suction tube	
12 receiver part	
13 hose connection	
14 hose	
15 separator	

IN THE CLAIMS

Please amend the claims as follows:

16 connection hose

33. (Currently Amended) A medical treatment apparatus kit comprising a hand piece

(1); an ultrasound generator disposed in the hand piece (1),

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electrical connection means (4) attached to a rear end of the hand piece (1) and connected to the ultrasound generator and for feeding electrical energy to the ultrasound generator;

a connector (5) disposed near the rear end of the hand piece (1) for connecting a line to a Storage container for a medical flushing liquid;

a sonotrode (3) having a tip and having a rear end attached to the front end of the hand piece (1), and wherein the ultrasound generator is connected to and drives the sonotrode (3) with ultrasound;

a flushing line (6) having a rear end connected to the connector for flushing healing agents to the tip of the sonotrode, wherein the flushing line is aligned relative to an axis of symmetry of the hand piece:

a valve (7) disposed in the flushing line (6).

a channel disposed within the sonotrode (3) for feeding a medical flushing liquid to a front tip of the sonotrode (3) and wherein the channel is connected to a front end of the flushing line (6);

an inner cylindrical thread (8) disposed at a front end of the hand piece (1):

wherein the hand piece (1), the ultrasound generator, the electrical connection means (4), the connector (5), the flushing line (6), the valve (7), the inner cylindrical thread (8), the sonotrode (3), and the channel form a base part of a kit;

a connection bush (9) having an outer attachment thread on a rear end for attachment to the inner cylindrical thread (8) of the front side of the hand piece (1); Application/Control Number: 10/624,581 Page 9

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an adaptation sleeve (10), wherein a front end of the connection bush (9) transitions into a rear end of the adaptation sleeve (10);

wherein the connection bush (9) and the adaptation sleeve (10) are slid over the sonotrode (3) and attached to the hand piece (1);

a suction tube (11)slid over the sonotrode (3), surrounding a front end of the sonotrode (3) and attached to a front end of the adaptation sleeve (10) for suctioning waste medical flushing liquid;

a receiver part (12) disposed with a first end at and branching sideways from the adaptation sleeve (10) for feeding the waste medical flushing liquid;

a hose connection (13) disposed with a first end at a second end of the receiver part (12);

a suction hose (14) attached with a first end to a second end of the hose connection (13) of the adaptation sleeve (10);

wherein the connection bush (9), the adaptation sleeve (10), the suction tube (11), the receiver part (12), the hose connection (13), and the suction hose (14) form a first attachment of the kit:

a sleeve (2) having an outer attachment thread on a rear end for attachment to the inner cylindrical thread (8) at the front side of the hand piece (1)[[.]].

wherein the sleeve (2) is slid over the sonotrode (3) and attached to the hand piece (1); wherein the sleeve (2) forms a second attachment of the kit.

END OF AMENDMENTS

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Allowable Subject Matter

Claims 2-17, 27-31 and 33-34 are allowed over the prior art of record as amended in this office action.

The following is an examiner's statement of reasons for allowance: The claims in this application have been allowed because the prior art of record fails to disclose either singly or in combination the claimed device of a medical treatment apparatus including a hand piece with a ultrasound generator and adaptation sleeve for suctioning medical fumes from a surgery site.

The closest prior art of record is Dieras et al. (USPN4,804,364) and Christ et al. (USPN5,984,889), however these references do not disclose the device as claimed or described above.

Regarding claims 27, 33, and 34, the closest prior art of record fails to teach among all the limitations or render obvious the specifics of the adaptation sleeve arrangement.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher D. Koharski whose telephone number is 571-272-7230. The examiner can normally be reached on 7:30am to 4:00pm EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Lucchesi can be reached on 571-272-4977. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Date: 5/22/2009

/Christopher D Koharski/ Examiner, Art Unit 3763

/Nicholas D Lucchesi/ Supervisory Patent Examiner, Art Unit 3763